# Guidelines for Peer Review of Cost-Benefit Analysis

February 1, 2022



# **Table of Contents**

The Compact Development Process and CBA	3
Peer Review of ERR Estimates	4
Peer Review Documentation	5
Selection of Peer Reviewer	6
Level of Effort	6
Role of DPE Senior Management	7
Annex I: Tracking the Guidelines for Cost-Benefit Analysis Peer Review Over the Years	7
Annex II: Templates for Peer Review Documentation	8
Annex IV: Example Task Order for External Peer Reviewer	11
Endnotes	18

This guidance updates and replaces the MCC Cost-Benefit Analysis (CBA) Guidance to establish the process for peer review of the CBA model and the resulting estimates of economic rates of return (ERRs). This replaces previous guidance related to the peer review of CBA and ERR estimates (see Annex I for a list of relevant previous guidance).

The primary goal of peer review of the CBA model is to ensure that the Investment Management Committee's (IMC's) recommendations are based on information derived from accurate calculations in the CBA model which is built on standard methodologies in economics. Peer review is generally defined as "a process by which something proposed (as for research or publication) is evaluated by a group of experts in the appropriate field. "For the purposes of this document, we will define "experts" to mean economists, and consider the Peer Reviewer to be an expert economist assigned the task of evaluating ERR estimates generated from a CBA model associated with an MCC compact. The economist leading the development of a CBA model will continue with the practice of consultations with the compact development team (including sector leads and due-diligence consultants) throughout the process of developing a CBA model as well as presentation to Economic Analysis (EA) Division staff to seek feedback, but the consultations and presentations are not considered to be part of the peer review process.

An economist is eligible to be a peer reviewer if they have not been a regular member of the Country Team corresponding to the CBA model under review and have not been regular contributors to the relevant CBA modeling process. The peer reviewers can be internal or external to MCC, with those outside of the agency demonstrating strong technical expertise and experience in the field of CBA.

MCC generates and officially reports ERRs at potentially five key points in time, and a peer review is required for the first four of these five points. As noted in the CBA Guidance, the five points in time when ERR estimates are generated to assess the net benefits of MCC investments are: (1) the Investment Memo (original ERR), (2) at entry-into-force (EIF ERR), (3) when the compact is modified for substantial changes in program design and costs or new data are available that change key assumptions or parameters in the CBA model (revised ERR), (4) at compact closeout (closeout ERR), and (5) when final independent evaluation has been completed (evaluation-based ERR). The first four ERR estimates are usually completed by MCC economists and considered *ex ante*, whereas the fifth is completed by an independent entity and considered *ex post*. The review process described in this guidance applies to the first four *ex ante* ERR estimates.

# The Compact Development Process and CBA

The compact development team (CDT) consists of MCC staff (the "country team," or "CT") and a team assembled by the partner government (the "core team"). The CT economist leads the process to develop the CBA model for the interventions proposed for the compact. The CBA model is designed around the program logic, the team process for which is coordinated by the CT's monitoring and evaluation lead. To adhere to the investment criteria, all proposed interventions must be aimed at relieving a root cause of a binding constraint. The binding constraints are identified in the Constraints Analysis Summary

Guidelines for Peer Review of Cost-Benefit Analysis | February 1, 2022

Memorandum and the root causes determined in the Opportunity Memorandum. The framework for program logic for each project and activity is usually developed just prior to the Project Proposal Assessment Memorandum; a CBA model can be developed only after the program logic has been established. Input from sector experts and other members of the compact development team throughout the entire compact development process informs the CBA model. Once the CBA model is used to generate an ERR estimate, a peer reviewer must be requested by the CT economist and assigned by the EA managing director.

#### Peer Review of ERR Estimates

The objectives of the peer review of the CBA model are to have the reviewer:

- Review the ERR estimate and documentation provided by the CT lead economist. The documentation includes (but is not limited to) the program logic; description of and presentations on the constraint and root cause analyses; monitoring and evaluation (M&E) plan; literature reviews; and CBA guidelines.
- Provide in-depth written comments on and recommendations for adjustment to the CBA model methodology and data based on a review of relevant literature, project design documentation, and the contents of the CBA Excel workbook with the ERR estimates.
- Validate that the ERR estimate is:
  - Conceptually consistent with the program logic and other relevant elements of project design
  - Underpinned by economic theory and logic
  - Consistent with MCC CBA guidelines (including sector-specific CBA guidance, when available)
  - Consistent with up-to-date, industry-standard methodologies (which are ideally reflected in MCC's guidance documents referenced above). Where any of industry- standard methodologies, MCC guidance, and relevant past MCC CBA's diverge, the CT economist should transparently document the justification, and the peer reviewer should assess the merits of the justification for the deviation.
  - Supported by relevant and available empirical economic evidence.
- Verify that calculations, formulas, and other spreadsheet operations in the CBA workbook are error-free ("model verification"), and to correct/note any errors in a copy of the workbook.
- Provide a Peer Review Memo that consists of (i) a description of the peer review process; (ii) a summary of recommended changes to the CBA; and (iii) a copy of the CBA (in Excel) with annotated changes to any calculation errors.

The following steps are expected for the completion of the peer review process:

- 1. The CT economist submits the CBA workbook with ERR estimate and supplemental documentation to the peer reviewer
- 2. The peer reviewer submits a peer review memo
- 3. The CT economist documents the country team's responses to the peer reviewer's comments in a *response memo*, and shares it with the reviewer
- 4. The peer reviewer may share *final feedback* indicating whether the CBA author's response reflect any unresolved material differences of views between the author and peer reviewer. This step is

- optional and can be through a brief email to the CT economist. If there are areas of disagreement, the peer reviewer can provide feedback with their objections for the record. A copy of the final feedback should be saved in the Peer Review Repository.
- 5. The CT economist prepares *a CBA peer review completion memo* to the EA managing director, and the EA managing director signs the memo. To ensure efficient development of the completion memo, the CT economists may consult with the EA managing director before they draft the memo, especially if there are material differences between the CT economist and the peer reviewer.

Templates for the peer review memo, author's response, peer reviewer feedback, and a completion memo are available in Annex II. Once the completion memo is finalized, the CBA workbook with the ERR estimate, along with any supporting documentation necessary, can be published on the MCC website. This process is to be followed every time an ERR estimate is published on the MCC website. If a batch of CBA models (for multiple projects or activities) are peer reviewed together, the CT economists can rely on a combined documentation and completion process for the peer review of all the models.

Peer reviewers can be internal or external to EA (see Annex III for process flow diagram). External peer reviews are carried out through a contract managed by EA staff. MCC staff with requisite expertise in economics and cost-benefit analysis from other divisions may also serve as an external peer reviewer. See Annex IV for an example task order. The peer reviewer can be engaged when the CBA framework is developed to get early input as well as when the CT economist is ready to seek initial feedback on the valuation approaches and data sources. However, the CT economist may decide to engage the peer reviewer around the time a CBA is complete so that the review process can be completed efficiently. Sharing of materials for review in multiple tranches is permitted for internal or external peer reviewers for partially complete CBA, to avoid submitting all materials to the peer reviewer at the last minute.

#### **Peer Review Documentation**

The primary goal of peer review is to ensure that the CBA model reflects accurate calculations that are built on standard methodologies in economics. To that end, for the ERR estimates presented in the Investment Memorandum (IM), the aspirational goal is to have the peer review, and therefore all technical input to the CBA from the country team, completed prior to the submission of the IM to the Practice Lead/Senior Director (PLSD) review. After that point, all modifications to the CBA should result from MCC management feedback only. Experience suggests that technical changes in project/activity design are often made after the PLSD review, which necessitates updating the CBA and ERR estimate. In situations where changes to the CBA and ERR estimates are made after the IM is submitted for PLSD review, it may not be possible to have the updated CBA peer reviewed before the IM is presented to the IMC. In that case, the CT economist should include a disclaimer that "these ERR estimates have not been entirely peer reviewed" and describe the technical changes that were not peer reviewed.

The CT economist must document the steps of the peer review process following the templates for peer review documentation (see Annex II). The ERR estimate and all associated documentation will be stored on a shared directory (e.g., on Compass) that serves as a Peer Review Repository, currently at the internal SharePoint Documents directory for the EA division. The IM ERR will be stored on the shared directory

Guidelines for Peer Review of Cost-Benefit Analysis | February 1, 2022

upon submission of the IM for PLSD review.

Materials related to peer review of CBA at other milestones will also be stored in the repository. The peer review documents for the EIF ERR will be stored in the repository upon publication of the model on the MCC website. For program design changes or compact budget reallocations that require, according to the MCC modifications policy, an IMC decision and a recalculation of the ERR estimate, peer review documentation will be stored upon submission of the reallocation memo to the IMC. Documents related to the closeout ERR will be stored when the closeout ERR is ready for publication on the MCC website. <sup>2</sup>

### Selection of Peer Reviewer

The EA managing director will be responsible for assigning a peer reviewer after the PPAM for each CBA. In making this decision, the EA managing director may request recommendations from the CT economist and other members of the CT. The final decision on the peer reviewer should be based on the following criteria:

- Experience constructing and critiquing cost-benefit analyses in the relevant sector
- Knowledge of country and country-specific data sources, and
- Feasibility of dedicating the necessary level of effort given other work commitments

In cases where MCC staff are unavailable to serve as an internal peer reviewer, or the analysis might benefit from bringing in an outside economist with expertise in the relevant sector, the EA managing director will assign an external peer reviewer. An external peer reviewer may also be assigned to complement an internal peer reviewer if specific outside expertise is necessary.

#### **Level of Effort**

Completing the peer review process as structured requires staff resources dedicated to the process. A single CBA model peer review is expected to require approximately 24 labor hours from the peer reviewer. Table 1 below presents estimated hours for the CT economist and the peer reviewer for reviewing a single CBA model and related ERR estimates. These estimated hours may be revised after an initial period of implementation of the peer review guidance.

Table 1: Estimated Peer Review Hours per CBA

	# of individuals	Hours stage 1	Hours stage 2	Hours stage 3	Hours - all stages	Total hours for each CBA model
CT economist: time dedicated	1	3.5	5.5	3	12	12

6

	# of individuals	Hours stage 1	Hours stage 2	Hours stage 3	Hours - all stages	Total hours for each CBA model
for managing peer review (not CBA model dev elopment)						
Peer Reviewer	1	6	12	6	24	24

# **Role of DPE Senior Management**

The EA managing director is responsible for keeping the Chief Economist informed of the progress of economic analysis during compact development and implementation. The EA managing director is expected to highlight both positive accomplishments and ongoing challenges and should provide opportunities throughout the process for the CT economist to brief the DPE management regarding the current state of the economic analysis. In addition, the EA managing director will schedule a presentation by the CT economist to the Chief Economist prior to the submission of ERR estimates for inclusion in any IMC documents. Changes to the CBA model and the ERR estimates or their description in the IMC documents after they are submitted for PLSD review may require clearance by the EA managing director and/or the Chief Economist.

# Annex I: Tracking the Guidelines for Cost-Benefit Analysis Peer Review Over the Years

Guidelines for Cost-Benefit Analysis Peer Review Over the Years

Date of Guidelines	Motivation for the version	Main changes made
January 2012	Original version developed to facilitate coordination among country teams, support economists in conducting these reviews in a more consistent manner.	N/A
February 2014	Final version adopted	Include CT review as part of peer review process

Date of Guidelines	Motivation for the version	Main changes made
January 2022	Response to OIG audit of MCC ERRs	Defines peer review as the process that involve a peer reviewer (while recognizing the CT review and presentation to EA staff as part of the process for developing the CBA model)

# **Annex II: Templates for Peer Review Documentation**

# 1. Illustrative template for tracking peer review related activities

Item	Date sent/received
1. Documentation supporting the CBA	
Program logic	
Constraint analysis related materials (memo, presentation)	
Root cause analysis related materials (memo, presentation)	
M&E plan or relevant (possibly draft) IM Annexes	
Relevant literature review and associated pdf files if possible.	
CBA guidance (overall guidance, SCDP)	
2. CBA workbook	
3. Peer review memo Record dates of receipt of peer reviewer feedback on methodological issues orthe structure of the CBA model if those are shared earlier than the complete peer review memo (which will capture all peer reviewer comments).	
4. CBA author's response	
5. Final feedback from the peer reviewer	
6. Completion memo	
	_

Item	Date sent/received
Memo submitted to the EA managing director	
Memo signed by the EA managing director	

# 2. Template for the peer review memo (to be prepared by the peer reviewer)

- Summary
- Methodological comments: Validation of the CBA model
  - Fatal flaws
  - Non-fatal flaws (e.g., data misinterpretation or disputes, stylistic/editorial comments)
- Comments on the CBA workbook: Verification of CBA calculations
  - Summary on the nature of calculation errors identified
- Other Comments

### 3. Template for CBA author's response memo

Follow the format of the peer reviewer comment memo and provide responses to the comments. Also, provide a brief description of the nature of any revisions made in the calculations/formula in the CBA Workbook.

An example memo is available at the internal SharePoint Documents directory for the EA division.

## 4. Final feedback from the peer reviewer

A response from the peer reviewer is optional, and this can be in the form of a brief email from the peer reviewer (to the CT economist).

# 5. Template for documenting CBA peer review completion

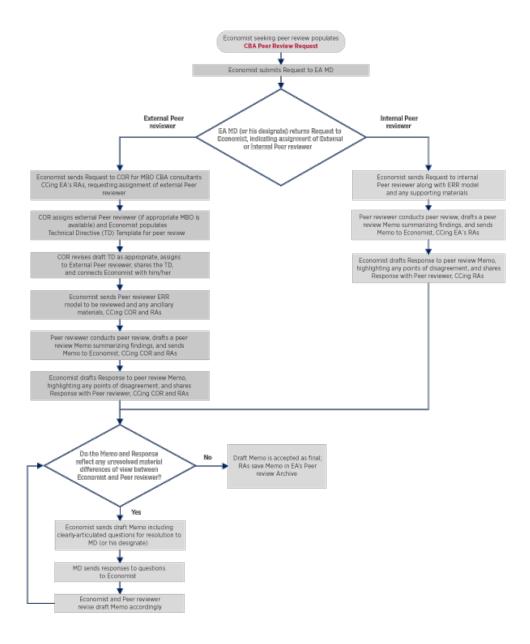
PEER REVIEW COMPLETION MEMORANDUM FOR: EA Managing Director, Department of Policy and Evaluation

FROM: [Country Team Economist Name], Team Economist, [Compact Name] Country Team

SUBJECT: Request for Approval of [Compact Name] Completion of CBA Peer Review

[Maximum two paragraph summary of major comments raised by peer reviewer and what the Economist's response was, particularly noting if there were any areas of disagreement between the Economist and the Peer Reviewer.]

Recommendation
That you approve final peer review of (the/all) [Compact Name] ERR(s).
Agree
Disagree
Let's Discuss
Prepared by: [Country Team Economist Name], [Compact Name] Country Economist
[The entirety of this memo should fit on one page – more details can be provided in a one or two page
"Background" section starting on the next page]
[If the EA managing director chooses "Disagree" or "Let's Discuss" a revised memo will need to be
submitted subsequently by the Economist until the EA managing director selects "Agree." All memos
must be documented in the Peer Review Repository.]



# **Annex IV: Example Task Order for External Peer Reviewer**

# MCC Morocco II Compact: Peer Review of Economic Analysis

Technical Directive: Peer Review of Secondary Education Activity Revised (based on 2020 Modification)

Cost-Benefit Analysis (CBA) Model

Issue Date: July 7, 2021

Period Covered: July 28-August 20, 2021

#### **Objectives**

The primary objectives covered by this Technical Directive (TD) are to:

- Review the (2020 Compact modification-based) Revised CBA model for the Secondary Education Activity of MCC's Morocco II Compact in preparation for CBA model and ERR publication.
- Provide in-depth written comments on and recommendations for adjustment to the CBA model methodology and data based on a review of relevant literature, project design documentation, and the contents of the CBA model Excel workbook.
- Verify that calculations, formulas, and other spreadsheet operations in CBA model workbook are error- f ree, and to correct/note any errors in a copy of the CBA model.
- Provide a Peer Review Memo that consists of (i) a description of the CBA model review process; (ii) a summary of recommended changes to the CBA model; and (iii) a copy of the CBA model (in Excel) with annotated changes to any calculation errors.

#### **Tasks**

- 1. Review all CBA-relevant project design documentation, to be provided by the MCC Morocco II Country These documents include but are not limited to: Program Logic; description of and presentations on the economic analysis; Monitoring and Evaluation (M&E) Plan; literature reviews; and Guidelines for Economic and Beneficiary Analysis.
- 2. Review the Morocco II Secondary Education Activity Revised CBA model description and Excel workbook (to be provided to the consultant by MCC Morocco II Country Economist), and ensure the model is:
  - a. Conceptually consistent with the program logic and other relevant elements of project design;
  - b. Underpinned by economic theory and logic;
  - c. Consistent with MCC economic and beneficiary analysis guidelines;
  - d. Consistent with MCC past practice in other country contexts where appropriate, and thorough and persuasive in providing justification when deviating from these practices; and
  - e. Supported by relevant and available empirical economic evidence.

As a peer reviewer, the consultant is encouraged to seek input from other qualified sources outside MCC, as appropriate, during the validation process. Any written commentary from such sources should be integrated with the peer reviewer's comments.

- 3. Ensure that all formulas, calculations, and programming in the model are consistent with the model described in the project documentation and are error-free.
- 4. Correspond and teleconference with CBA authors to request clarification on project design and CBA model contents as needed. Please copy the Project Monitor (PM) and Research Analyst supporting the consultant contract on all communications. For the Secondary Education Activity this would include the following co-authors and contributors:
- Economist (leading for Morocco II and for the Employability Project, of which Secondary Education is an Activity)
- Economist (supporting for Morocco II, leading Secondary Education Activity analysis)
- M&E Lead

Present results of CBA model review (Tasks 1-4 above) in a Peer Review Memo (PowerPoint or Word document).

Provide MCC Morocco II Country Economist with an annotated CBA model workbook (in Excel, saved as a new document), with comments further detailing required changes, if and as

If necessary, conduct a brief final review of any changes to the CBA model (Excel workbook) made after the main peer review based on comments from the Country Team and MCC Management during f inal The CBA model author(s) will clearly indicate any changes that were made to the peer reviewer. The Peer Review Memo should be updated as necessary to reflect this review.

The estimated level of effort (LOE) required is up to 24 hours

#### **Deliverables**

Required deliverables under the contract include:

- Peer Review Memo summarizing results of and recommendations based on the CBA model
- Annotated draft CBA model (comments within Excel workbook) further detailing required changes and recommendations as necessary for

The following are required to Closeout the Peer Review process:

- 1. Final Peer Review Memo
- 2. Author's response to the Peer Review Memo
- 3. Peer Reviewer's indication (by email to Derick Bowen) regarding whether the Peer Review Memo and the Author's Response reflect any unresolved material differences of view between the Author and Peer Reviewer

# Investment Background: Secondary Education Activity, Education and Training for Employability Project, Morocco II Compact

MCC signed a \$450 million Compact with the Government of Morocco (GoM) in November 2015. The Morocco II Compact, designed to reduce poverty through economic growth by investing in education, vocational training, and land productivity, entered into force on June 30, 2017. The Education and Training for Employability Project ("Employability Project") is a \$220 million <sup>3</sup> investment that aims to improve the quality of secondary education and vocational training and their adequacy to the needs of the productive sector through the implementation of two activities: (i) the Secondary Education Activity and (ii) the Workforce Development Activity.

The Secondary Education Activity (\$110 million) focuses on establishing an Integrated School Improvement Model <sup>4</sup> and aims to design and demonstrate a new, cost-effective, sustainable, and scalable model of public secondary schools for delivering quality secondary education focused on the employability skills needed for the modern workforce. The Activity will also support key reforms to improve

Guidelines for Peer Review of Cost-Benefit Analysis | February 1, 2022

performance management systems, including education assessments and education management information systems. The overall objective of this Activity is to increase the employability of young Moroccans, by improving the quality and relevance of learning and the equity of access to secondary education (lower and upper secondary). The Activity is composed of three sub-Activities:

- 1. The Integrated School Improvement Model Sub-Activity (Attahadi) to improve the efficiency and performance of secondary schools by leveraging the "Integrated School Project" (a tool developed in a participatory way to improve learning and academic results). This sub -Activity will be deployed in 90 schools <sup>5</sup> (lower and upper secondary) across Tanger-Tétouan-Al Hoceima (TTH), Fès-Meknès (FM), and Marrakech-Safi (MS), three representative regions of the North, Center, and South of Morocco, respectively. These regions were selected based on education needs, poverty indicators, and economic and employment opportunities. To enable a rigorous impact evaluation, schools participating in the Attahadi sub-Activity were chosen at random from a set of eligible schools in the targeted regions. Specific interventions will include targeted regulatory reform, technical assistance, training, infrastructure improvements (which includes rehabilitation and limited expansion), and new equipment. Within this framework, each target school will benefit, through a contractual approach, from integrated support that will focus on strengthening its administrative and financial management autonomy, promoting student-centered pedagogy, and improving the physical environment of learning through adequate rehabilitation of the infrastructure and provision of equipment necessary for educational innovation. The Attahadi sub-Activity was intended to first be launched in TTH, with expansion to the other two regions (FM and MS) after one year. However, while school infrastructure works completion in TTH will happen about a year before those of FM and MS, the rest of the Attahadi sub-Activity components have not been implemented and it is unknown whether full Attahadi implementation for TTH is expected to occur ahead of the other two regions. The components of the Attahadi sub-Activity are:
  - a. *Participatory Diagnostic, School Improvement Plans, and Performance Contracts*.

    Developing of school improvement plans (SIPs) that will identify local needs and bring local stakeholders together. The School Improvement Plans will establish appropriate solutions to the causes of poor performance and inequitable access at individual schools. SIPs will include specific and measurable outcomes and targets that will be reported to provincial and regional directors.
  - b. *Integrated Support for Management, Pedagogy, and Infrastructure.* Supporting SIPs by providing funding for an integrated package of interventions to implement the Attahadi The interventions will include targeted improvements in three key areas: school leadership and management, pedagogical improvements and innovation for student- centered learning, and school infrastructure improvement.
  - c. *Regional Project Management, Capacity Building, and Learning.* Providing targeted project management technical assistance to regional and provincial education authorities to implement the sub-Activity and facilitate learning and sharing across schools. This component includes a strengthening of the capacities of the Regional Academies of Education and Training (AREFs) and the provincial directorates involved to ensure better steering and coordination of the implementation of the Secondary Education Activity. <sup>6</sup> A Partnership Fund to support the improvement of the quality of education in lower and upper secondary schools has been established. This Fund co-finances proposals that are complementary to, or that strengthen the actions planned in the Attahadi sub-Activity to improve the learning environment through the integration of new pedagogical approaches.
- 2. Student Assessment and Education Management Information Systems (MASSAR) to support the

actions undertaken by the National Body for the Evaluation of the Education System and the Ministry of National Education, Vocational Training, Higher Education and Scientific Research to sustain and improve the National Program for Student Assessment (PNEA) and to prepare Morocco's participation in the OECD's International Assessment of PISA (Program for International Student Assessment). The MASSAR sub-Activity integrates capacity building of actors at the level of the central, regional, provincial, and local levels (schools) with the aim of establishing an education policy guided by reliable information from the evaluation system. This sub-Activity involves the development, planning, and implementation of rigorous international and national assessments of student learning, using sex- and cohort-disaggregated data, and the utilization of that data to inform decisions for

**3.** A New Approach of School Infrastructure and Equipment Operations and Maintenance (O&M Sub-Activity) to develop, through technical assistance, a new approach for preventive and curative operations and maintenance (O&M) of school infrastructure, equipment, and information technology systems, clearly defining the roles and responsibilities of the actors concerned at the local, provincial, and regional levels. This approach integrates new forms of partnership with the private sector, as well as better planning in this area. Local, provincial, and regional actors in one region supported through the Attahadi sub-Activity will also receive capacity building in managing the new O&M system. Limited MCC Funding may also be contributed to such O&M contracts management system. It should be noted that this sub-Activity has changed in scope since it was initially designed. Instead of implementation in all 90 Project schools, the new O&M system will be piloted in 10 schools in the TTH region in calendar year 2021 and in all 34 intervention schools in TTH in calendar year 2022. There are no plans to pilot the approach in the other two Project regions, FM and MS.

In the short term, the Secondary Education Activity should result in improved capacity of teachers to use new student-centered teaching techniques by improving the management of schools through performance contracts, increasing autonomous management of schools, and improving school infrastructure. The improvement of the quality of teaching and the promotion of a more favorable environment for student learning that will result from the implementation of the Secondary Education Activity is expected to produce the following outputs and outcomes:

- Increased student success rate (completion of secondary school and transition to higher education)
  due to improved education quality (increased capacity of teachers in new student -centered
  teaching techniques and better management of schools) and an improved learning environment
  (rehabilitated schools);
- Higher probabilities of employment due to completion of higher levels of education; and
- Higher earnings for students who achieve higher levels of education and higher quality education.

Beneficiaries: Beneficiaries are students who attend the 90 MCC-funded Colleges (lower secondary schools) and Lycees (upper secondary schools) who achieve greater educational attainment (measured as increased graduation and transition rates) and/or improved learning quality (measured as higher test scores) that yield higher relative wages. Benefits in the Revised CBA model are disaggregated by gender due to differences in (i) returns to schooling across genders and (ii) labor force insertion rates across genders. The IM CBA model estimated 1,667,853 total beneficiaries over cohorts graduating up until Year 20 of the Project (note this is not the same as 20 cohorts); total beneficiaries are equal to the number of direct beneficiaries (with-Project school students, estimated at 320,227) multiplied by the average household size (at the time of IM this was assumed to be 4.63). At the time of this TD the beneficiary analysis for the Revised CBA model has not been completed. Cohort sizes are larger than what was

assumed at IM, but average household size is smaller. Beneficiary counts will be complete in the Revised CBA model sent to the peer reviewer as part of this task. The Revised CBA considers 20 cohorts of students and follows these students through their working lives (generally to age 70).

#### CBA Background: Revised, Secondary Education Activity, Morocco II Compact

*CBA Authors*: CT supporting economist (Revised CBA model only; earlier versions owned by economists no longer assigned to the Project); CT lead economist leads the Employability Project economic analysis and provided model guidance and inputs, particularly on the cost side, and made significant contributions to the literature review that informed the selection of the learning benefits parameters; Peter Fiore, research assistant, provided data cleaning and analysis for the Mincer regressions.

Because the Morocco II Compact is over halfway through its implementation period, Project design is complete, and the investment has already been approved. Changes to Project design and budget allocations within and across the Project resulted in a modification in December 2020; the Revised CBA model takes costs and benefits into account as of the time of the approval of the modification (January 2021). However, a CBA model and official ERR for the Secondary Education Activity have not been published by MCC at any point in Compact development or implementation, and the Revised CBA model and previous CBA models have not undergone a full peer review. While peer review elements from Stages 1-3 described below will be applicable to the tasks outlined in this Technical Directive, there will be a focus on Stage 2 and Stage 3 peer reviewer responsibilities. The consultant will review approved project design and the draft Revised CBA model that reflects this design, focusing on (i) validation of parameters and assumptions; and (ii) verification of CBA model operations and calculations (within an Excel workbook).

#### Relevant documents for reference and review:

- 1. Compact, 2015: Original framework agreement for the program, includes background on the original design of the projects and activities (Annex I relevant pages ANNEX I—2-8), and original project logic and indicators (Annex III relevant pages ANNEX III—1-3, 6-17).
- 2. Memo, 2021: Employability Project Update and Proposed Compact Modifications, which updates language in the Compact to reflect any changes throughout implementation.
- 3. M&E Plan V.1, 2017: Includes the project logic at Entry into Force (EIF) and projected economic benefits and beneficiaries, as well as a summary on the planned evaluation (pg. 9-10, 14-16, 27, 29, 34-38, 43, 51-56, 71-73, 80, 83-84).
- 4. Revised Project Logic (draft), 2021: A second version of the M&E Plan is currently being drafted but is not yet available. What we do have in completed draft form (and in English) is updated Project Logic for the Employability Project, which includes the Secondary Education
- 5. Baseline Evaluation Report (draft), April 2020.
- 6. Current CBA model, July 2021: Revised ERR for Secondary Education Activity.
- 7. Model Documentation: This document outlines key aspects of the CBA model, explains the inclusion/exclusion of certain variables and activities, data constraints, reasoning behind methods, etc.

## **CBA Methodology Notes**

See above list of documents. A document will be included in the package with details on methodology.

### **Endnotes**

- 1. https://www.merriam-webster.com/dictionary/peer%20review
- 2. ERR estimates from evaluation-based CBA models, even though they are not covered by this peer review guidance, will also be stored in the repository for ease of reference when they are available for publication on the MCC website.
- 3. This amount is rounded to the nearest million USD and does not include MCC funding for Compact M&E and administrative costs, nor does it include any non-MCC funds (e.g., GoM country contributions or private sector co-financing). The same is true for the \$110 million budget for the Secondary Education Activity.
- 4. The "Integrated School Improvement Model" has been called by many names throughout Compact implementation and is currently most often referred to as the "Attahadi" model.
- 5. While all 90 schools received the non-infrastructure components, only 89 schools were rehabilitated as one school was found to need more repair than could be provided under the budget to bring it to a minimum health, safety, and sanitation standard.
- 6. Due to the COVID-19 pandemic and related school closures, it was decided to implement most of the teacher training virtually and as such the use of the AREF funds shifted in support of online learning. To help the relevant ministry address the new distance education needs, both in terms of student learning and for teacher training, it was decided to provide limited material/equipment support to the regional administrative (AREF) offices, the regional teacher training centers, and the national level teacher training division. This included equipment and software necessary to install recording studios for lessons and teacher training modules, as well as for housing the learning management system (LMS) at the regional level.